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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 16

Application Number: 09/412,050
Filing Date: October 04, 1999
Appellant(s): SINAI ET AL.

Jordan M. Becker
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 5 November 2003 (paper #15).

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-70 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

6,173,266	Marx et al.	9 January 2001
6,141,724	Butler et al.	31 October 2000

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-70 are rejected under 35 U.S.C. § 103 as being unpatentable over Marx (6,173,266) in view of Butler (6,141,724).

In general, the applicant is referred to figures 3, 4, 7 and 8 of Marx. Figure 3, element 330 shows that Marx uses a computer connected to the Internet allowing the user access to remote data and/or equipment using known methods available. Figure 7 shows a graphical representation of a user designed dialog and figure 8 shows speech dialog modules giving the user a variety of options. This teaches the applicant's claims towards a graphical design tool that allows hypermedia links to the World Wide Web.

Claim 1-6: A "graphical design tool" is clearly shown by Marx in figure 7 and described in column 16, line 31 as showing graphical user interfaces (GUIs). "Operational link" is shown with his variety of connectors to link states and templates, col. 16, lines 39-40. "Spoken dialog interaction between a person and a machine" is taught by his dialogue module templates and instances in column 17, especially lines 38-41.

It is noted that Marx does not explicitly teach the terminology "hypermedia page" or "World Wide Web page". However, he teaches the connection to the Internet as noted above and those of pedestrian skill in the art know the Internet contains web pages. Butler teaches the explicit use of the term web page in col. 3, lines 59-60 which teaches that the way to utilize remote equipment on the Internet is through web page access of a server. It would have been obvious for a person having ordinary skill in the pertinent art, at the time the invention was

made, to enable links between pages on the Internet in combination with the interactive speech dialogs of Marx because Butler teaches that links between a user and remote web pages can be used to enhance graphical design palettes (see figure 3 and column 4, line 53 to column 5, line 1). Butler explicitly teaches establishing links to a web page where he teaches that his design tool is in JAVA byte code (program code) as an applet and downloadable from the web page as controlled by the internet server software (column 3, lines 57-60) and The user runs the web browser 38, connects to the web page stored by the server 10 and requests 60 the application designer JAVA applet 32,(col. 4, lines 56-58). It is noted that he also teaches in column 5, lines 65-66 that the invention need not necessarily be limited to telephony applications as the general principles apply to most computer applications. Thus, it would have been obvious to control other computer software applications using the Internet based design tools of Marx and Butler.

Claims 7-35: "allowing a user to specify a correspondence between an element of said component and a element of the hypermedia page" (suggested with his figure 7 described in column 16, line 31 as showing graphical user interfaces (GUIs)...by creating states and instances of Dialogue Modules by "dragging and dropping" the appropriate icons into the main workspace); and

"functionally link said component with the hypermedia page" (suggested by his dialogue module templates and instances is column 17, especially lines 38-41). Additional vocabularies which define dialogues are taught by Marx in column 18, lines 50-56.

Claim 36-42: See claim 7 above. The use of a "query" is taught with his use of different types of connectors including a conditional connector which allows the service to proceed to the second icon only if a condition is satisfied, col. 16, lines 61-64, indicating that real-time

processing must take place during the dialog to determine whether or not one or more conditions specified are satisfied.

Claims 43: Reference to a field of a Web page because GUIs inherently require the user to select an area either by positioning a cursor over a designated field or by placing something in a particular area (hence the terms select, drag and drop)

Claim 44-51: See claim 7 above. "Storing data" is taught by his use of a storage device 310, figure 3.

Claim 52-57. See claim 7 above. "Receiving user input" is obvious in view of Marx's teaching that the user may customize the dialogue modules (col. 17, lines 37-42) to include a valid response and vocabularies (col. 18, lines 49-56).

As per claim 58-70, "allowing a user of a computer to create content for use in a voice response system" (see Marx's title):

"receiving first user input graphically specifying a spoken dialog" (his dialogue modules are graphically interconnected, abstract);

"storing first data representing a dialog flow" (his figure 3 showing the use of memory storage devices 306, 308 and/or 310 which allow standard storage of computer related data);

"receiving second user input graphically specifying a correspondence between a field of a hypermedia page and a property of one of said components" (suggested in figure 7 where graphical interconnections between objects of varying properties is shown – see also Butler as noted above who explicitly teaches the use of web page connections); and

"storing second data representing the correspondence based on the second user

input..." (this is also taught by the storage devices 306, 308 and/or 310 in combination with the link via web page to remote server as taught by Butler. The storage devices of Marx alone are sufficient because they allow storage of more than 2 elements of data that the user may choose to input to a computer. However, Butler additionally teaches that remote storage would be obvious such that storage could also exist on any server on the Internet to which the user has access because this is a typical use of servers. It is noted that claim 60 includes a "third" user input which also fails to differentiate over the prior art because figure 7 of Marx and figure 3 of Butler show that the number of elements that can be input by the user is not specifically limited).

Synthesizing speech from text is taught by Marx in column 18, line 40 with his text-to-speech synthesizer.

(11) Response to Argument

The applicant's statement on pages 6-7 of paper #15 that "Marx and Butler do not teach or suggest, either individually or in combination, graphically creating an operation link between a hypermedia page and a component that defines a spoken dialog interaction between a person and a machine" improperly assumes that the claim is directed to a specific use (or user) limited to a particular operational link with a hypermedia page. This argument is improper for at least three reasons.

First, the invention as claimed is directed towards a "tool" or method to create "content" related to voice response dialogs as opposed to the resulting voice response dialog that the user will employ the tool/method to implement. Claim preambles are quoted to illustrate this point: "A computer-implemented graphical design tool" (claims 1-6); "A tool for allowing a user of a

computer system to specify an operational link between a hypermedia page and a component defining a dialog interaction between a person and a machine, the tool comprising:" (claims 7-20); "tool for allowing a user of a computer system to specify an operational link between a hypermedia page and a component that defines a dialog interaction between a person and a machine, the tool comprising:" (claims 21-28); "A tool for authoring content for use in a voice response system, the tool comprising"; "A tool for authoring content for use in a voice response system" (claims 29-40); "A design tool for authoring content for use in a voice response system" (claims 41-43); "A method of allowing a user of a computer system to create content for use in a voice response processing system" (claims 44-51 and 58-70); "A method of allowing a user of a computer system to specify an operational link between a hypermedia page and a component that represents a dialog interaction between a person and a machine" (claims 52-57). If the claims were directed towards the particular operation that the resulting link provides, then this would need to be addressed with prior art. However, the claims do not even specify what the desired result of the link is. No particular operation is claimed. Therefore, the "operational link" would be any form of link that works as desired regardless of the specific operation or desired result of the link.

Second, the applicant's disclosure on pages 7-10 defines the possible uses of the invention in a very broad fashion. Page 8, for example, clearly indicates that the connection to the Internet is not limited to web sites or specific hypermedia pages but includes applications "via the Public Switched Telephone Network (PSTN)". Page 15 of the specification teaches that a "Telephony Channel" provides the primary interface to the user. Therefore, the telephony related applications that the cited prior art performs must be considered properly applied if the

claims are clearly drafted and can be interpreted in view of the specification. Even so, the prior art is not limited to telephony as noted in the rejection above. If the Examiner has mis-interpreted the claims, then the specification was not properly written to support the claimed invention and the claims do not properly define the invention.

Third, the prior art teaches that it is obvious to "graphically create an operational link between a hypermedia page and a component defining a spoken dialog interaction between a person and a machine" as noted in the above rejection under 35 USC 103. Marx clearly teaches that it is obvious to graphically create operational links that allow interactive speech dialog between people and remote computers. The applicant does not dispute that Marx teaches the use of a Graphic User Interface (GUI) for creating and editing an interactive speech application (figure 7). Marx will also provide coupling to external computer systems or networks (col. 5, lines 50-51). Additionally, Marx clearly teaches that it is obvious to enable such desired coupling utilizing a Network link... may provide a connection through local network 324 to a host computer 326 or to data equipment operated by an Internet Service Provider (ISP) 328. ISP 328 in turn provides data communication services through the world wide packet data communication network now commonly referred to as the "Internet' 330 (col. 6, lines 1-8). Finally, Marx's GUI is itself a hypermedia page because it contains more than one type of media and allows the use of text and icons (Object Oriented Programming objects) representative thereof to be selected and modified regarding the properties for each desired dialog action. Butler teaches some obvious details to implement remote application links. For example, Butler teaches The internet server software 26 controls communication to the client 12 on the internet 14. A web page with hypertext links to the application designer 32 in the form of a JAVA applet

is stored on the server 10 and the applet is sent to a client 12 on request... The client 12 is a personal computer...and runs a JAVA enabled web browser 38 (col. 3, lines 18-31). Butler additionally teaches that such connections may be represented by Object Oriented Programming objects (col. 3, lines 63-65) with connection properties. Thus, the combined prior art teaches that it would have been obvious to utilize links from a web page to provide operational connections between a user and systems on the Internet.

The arguments presented on page 7 (paper #15) that Marx does not allow a user to create a link between the computer system itself and a hypermedia page is clearly erroneous. This statement ignores the combined teachings as presented in the rejection above in which Marx teaches that graphical links for designing interactive speech applications (figure 7) are well known and Butler teaches that such graphical links (col. 4, lines 17-20) are well known to represent typical links from web pages (col. 3, lines 18-60). Thus, the combination clearly teaches that it is well known to create operational links between a hypermedia page on the Internet (such as a web page, Butler, col. 3) and the interactive speech applications of Marx that allow a user to communicate with the Internet (Marx, col. 6, line 8).

The argument on page 8 fails to make any relevant refutation of the combination of references. It fails to point out what particular "operational link" the invention provides to distinguish over the particular operation that Butler implements using JAVA. JAVA implements the desired operation by downloading an applet. The applet performs the operation as a method implemented through software. The combination of references provided allow for the graphical design of links for establishing control of spoken dialog and for allowing the resulting software to perform its control functions remotely or by downloading the necessary control functions

through hypertext links from one or more web pages. The claims fail to distinguish by providing, for example, what step or series of operations the claimed "operational link" will perform to achieve the desired result of implementing spoken dialog.

The arguments relating to claim 29 (pages 8-9, paper #15) read on the use of different Dialogue Module templates and instances (Marx, column 17). The use of a second editor is also suggested by Marx's various user interfaces (col. 16) and other windows that will allow additional editing of desired features as noted in column 18. This claim language as argued is also considered related to the second editor of claim 36 (pages 13-14, paper #15) which has more detail indicating that the desired function is some type of query. In this case, Marx teaches that it is known to utilize a conditional connector having different "Connectors" option, which provides connector types to connect icons in the main workspace (col. 16, lines 54-57, 61-64). Thus, the appellant's argument on pages 13-14 (paper #15) are also not convincing.

The arguments relating to claim 44 (pages 9-10, paper #15)) were addressed with respect to claim 7 in that the correspondence between a "component defining a dialog interaction" and an "element of the hypermedia page" is illustrated by the ability of the various editor functions to allow a different window to be selected (figure 7 and 9-11) in order to edit different features of the dialog modules.

The arguments regarding the "runtime unit" of claim 7 (page 11, paper #15) indicate that the appellant does not understand the text cited in the reference. The text cited at col. 17, lines 38-41 represent a variety of customizable features common to multiple Dialogue Modules and therefore will affect dialog interaction wherever they are referenced (i.e. – "during execution of

the dialog" as claimed). Using the GUI to edit the desired features through runtime application programming interfaces contained within the Dialogue Modules (col. 17, lines 49-52).

The arguments regarding the correspondence between a property of the dialog "component" and "a field" of the hypermedia page (pages 12-13, paper #15) also indicates that the appellant does not appreciate the correspondence of the cited text. Marx teaches in column 16, line 31 that graphical user interfaces (GUI) may be used to allow a developer to create the dialog service. The dialog service created would define the specific interaction between a person and a machine and a field of a hypermedia page as desired. Marx shows how to create such functional links using GUI. The functional links between components in Marx are stored to define the desired correspondence between the states and templates. When the states and templates are invoked during the dialog, the functional links to the defined properties are made automatically.

The arguments regarding claim 65 (page 15, paper #15) regarding the ability to "incorporate graphically an object of a predetermined type into the dialog flow" was addressed with regard to the graphical interconnections between objects of varying properties in Marx's figure 7. The user is the person creating the dialog and would be using the graphical design tool taught by Marx, for example, to cut, copy, paste and modify the properties of the dialog as well as the transitions between states and templates as desired.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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January 21, 2004

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